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NEWS

UK researchers join forces for climate solutions

Author: Press Office
09:52 (UTC) on Wed 3 Nov 2021

The UK's leading climate science organisations are joining forces to develop a new national alliance focused on climate solutions for society.

Seven Natural Environment Research Council (NERC) supported centres and the Met Office will work together as the new UK National Climate Science Partnership (UKNCSP) to respond to threats posed by a rapidly changing climate by putting climate science at the forefront of the solutions agenda.

Recognising the urgency of accelerating action towards the goals of the Paris Agreement and UN Framework Convention on Climate Change, the UKNCSP will play a leading role in the development of an end-to-end climate strategy.

The solutions-focused approach led by the UK's major climate science organisations will support the UK Government in developing and evaluating solutions to the challenges of mitigating and adapting to climate change. The partnership will also work with the public and private sectors to ensure decision makers and businesses have access to the climate information they need, in order to build resilience and adapt to the pressing challenges of the coming decades.

Professor Paul Monks, Chief Scientific Adviser for the Department for Business, Energy and Industrial Strategy (BEIS), will introduce the partnership at the Met Office's *Future of climate modelling* session today (Wednesday 3 November) at the United Nations Climate Change Conference, COP26. Professor Monks will outline how the Met Office and the seven NERC-supported research centres will combine their science research capabilities with universities across the country to integrate the UK's capabilities for monitoring, modelling and predicting climate change and its impacts.

With COP26 the backdrop for global collaboration in tackling climate change, the UKNCSP will coordinate its partners' wide-ranging resources in climate observing and prediction to deliver the climate information required to set in motion actions and solutions. The partnership will be driven by policy and decision-making needs and provide the foundations to enable the UK to continue leading in and developing its capabilities to address new challenges, such as extreme events, net-zero and building a climate-resilient UK.

The co-ordinated national approach will also support BEIS in enabling businesses to respond to the challenges and opportunities of climate change. As businesses become increasingly aware of the need to take the challenges and opportunities of climate change seriously, quantitative information about the potential impacts of climate change on their assets and operations, and the associated risks, is required. The UKNCSP will deliver climate information needed to help businesses make positive steps towards addressing these issues.

Professor Albert Klein Tank, Director of the Met Office Hadley Centre for Climate Science and Services, said: "Climate science needs to evolve to deliver to the new solutions agenda and this requires collaboration with experts in related science areas, as well as with practitioners in policy, planning and business. There is an urgent need for a sustained, coordinated vision and investment in long-term observations and numerical models to answer how the climate is changing and why, what might happen next, what impacts may arise, and which solutions will be most effective.

Professor Rowan Sutton, Director of Climate Science at the National Centre for Atmospheric Science, said: "At a time of rapid climate and technological change, the UKNCSP will enable a new solutions-focused approach by bringing together the UK's major climate science organisations to deliver the climate information needed for climate solutions. By pooling the power of the UK's wide-ranging capabilities in climate observing and prediction, we can shape a world-leading, strategic partnership that is driven by policy and decision-making needs."

As a priority, post-COP26, the UKNCSP will pool its partnerships' resources to ensure aligned and integrated modelling and sustained observing programmes for the evolving global and UK climate. The partnership will engage with government, public and private sector decision makers and with the wider UK science community to establish future needs for national capability in climate science and develop a roadmap in response. The focus will also be on enhancing the UK's capability by extending observational and modelling approaches, developing the use of new technologies, establishing major programmes of trans-disciplinary research and providing training for a new generation of policy and decision-makers and expert intermediaries.

The seven NERC-supported research centres are: British Antarctic Survey, British Geological Survey, the National Centre for Atmospheric Science, the National Centre for Earth Observation, the National Oceanography Centre, Plymouth Marine Laboratory and the UK Centre for Ecology & Hydrology.

Professor Angela Hatton, Director of Science and Technology at the National Oceanography Centre, added: "The UK has world-leading capabilities for monitoring, modelling and predicting UK and global climate change and its impacts. We need to continue to develop these capabilities to address new challenges, provide early warning of potential high impact changes that may emerge and evaluate specific policy options to mitigate and adapt to climate change. The UKNCSP will provide the foundations to enable the UK to continue to lead in these areas."

Professor Alan Jenkins, Deputy Director of the UK Centre for Ecology & Hydrology (UKCEH), **said:** "This partnership encompasses the entirety of climate science – identifying the causes and impacts of climate change, and making predictions for the coming decades.

"UKCEH brings unique expertise in assessing and quantifying the current and projected effects of climate change on ecosystems and the water cycle, including plant and animal species distribution, as well as the likely occurrence and severity of future floods and droughts."

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